



MATERIAL SAFETY DATA SHEET

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

CHS Inc.
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Transportation Emergency (CHEMTREC): 1-800-424-9300
Technical Information: 1-651-355-8443
MSDS Information: 1-651-355-8438

PRODUCT NAME R&O ISO (32, 46, 68, 100, 150)

MSDS: 0124-F1B0-Rev.B(3.25.05)

COMMON NAME: Industrial anti-wear hydraulic fluid / Utility Oil
Approximate SAE grade 10W, 20, 30, 40

CHEMICAL FORMULA: Mixture

CHEMICAL NAME: Lubricating Oil

CHEMICAL FAMILY: Hydrocarbon

Section 2 - COMPOSITION AND INFORMATION ON INGREDIENTS

INGREDIENTS	PERCENTAGES (by weight)	PEL (OSHA)	TLV (ACGIH)	CAS #
Oil, Solvent Neutral	30-98%	N/A	5 mg/m ³ TWA (Oil Mist)	64742-65-0
Oil, Bright Stock	0-60%	N/A	5 mg/m ³ TWA (Oil Mist)	64721-1-4
Performance Additives	Proprietary	N/A	N/A	

(TWA) - Time Weighted Average is the employee's average airborne exposure in any 8-hour work shift of a 40-hour work week which shall not be exceeded.

(STEL) - Short Term Exposure Limit is the employee's 15-minute time weighted average exposure which shall not be exceeded at any time during a work day unless another time limit is specified.

Section 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

POTENTIAL HEALTH EFFECTS

ROUTES OF ENTRY: (Eye Contact, Dermal, Inhalation.)

ACUTE EFFECTS OF OVER EXPOSURE:

Eyes - Contact with eyes may cause irritation.

Skin - Contact with skin may cause irritation.

Inhalation - May cause irritation of the nose and throat.

Ingestion - May cause nausea and vomiting. Large quantities may effect the central nervous system.

CHRONIC EFFECTS OF OVER EXPOSURE: No adverse effects anticipated.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Existing dermatitis and respiratory conditions.

CARCINOGENICITY: NTP: No

IARC: No

OSHA: No

Section 4 - FIRST AID MEASURES

EMERGENCY AND FIRST AID PROCEDURES:

Eye Contact - If material comes in contact with the eyes, immediately wash the eyes with large amounts of water for fifteen minutes, occasionally lifting the lower and upper lids. Get medical attention.

Skin Contact - If the material comes in contact with the skin, wash the contaminated skin with soap and water promptly. If the material penetrates through clothing, remove the clothing and wash the skin with soap and water promptly. If irritation persists after washing, get medical attention immediately.

Inhalation - If person breathes in large amounts of material, move the exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. Keep the person warm and at rest. Get medical attention as soon as possible.

Ingestion - If material has been swallowed, do not induce vomiting. Get medical attention immediately.

Section 5 - FIRE - FIGHTING MEASURES

FLASH POINT: >390°F (>200°C)

AUTO IGNITION TEMP: >400°F

FLAMMABLE LIMITS IN AIR
% BY VOLUME

LOWER
N/A

UPPER
N/A

EXTINGUISHING MEDIA: Use water spray to cool fire exposed surfaces and to protect personnel. Use foam, dry chemical or water spray (fog) to extinguish fire.

SPECIAL FIRE FIGHTING PROCEDURES: When fighting fires wear full turnout gear and self contained breathing apparatus. Water may cause splattering. Material floats on water.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Toxic fumes gases or vapors may evolve on burning.

HAZARD RATINGS:	NFPA 704:	Health- <u>1</u>	Fire- <u>1</u>	Reactivity- <u>0</u>
	HMIS:	Health- <u> </u>	Fire- <u> </u>	Reactivity- <u> </u>

Section 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO TAKE IF MATERIAL IS RELEASED OR SPILLED: Personal protective equipment should be worn. Ventilate area if confined or poorly ventilated. Contain with dikes or absorbent to prevent migration to sewers/streams. Take up small spill with dry chemical absorbent; large spills may require pump or vacuum prior to absorbent. May require excavation of severely contaminated soil. Avoid contact with skin and eyes.

Section 7 - HANDLING AND STORAGE

HANDLING AND STORING: Store in closed container away from all ignition sources. Handling temperatures should not exceed 175°F (80°C). Wash thoroughly after handling. Do not store at temperatures exceeding 113°F (45 C). Odorous and toxic fumes may form from the decomposition of this product if stored at excessive temperatures for extended periods of time. Open containers carefully and only in well ventilated areas or use appropriate respiratory protection. Store in well ventilated area.

Section 8 - EXPOSURE CONTROL - PERSONAL PROTECTION

ENGINEERING CONTROLS: Ventilate to control mists and vapors below exposure limits.

RESPIRATORY EQUIPMENT: Normally not required, if exposure limits are exceeded use a Niosh approved organic vapor respirator. Self contained breathing apparatus is recommended for entry into confined spaces or other poorly ventilated areas and for large spill clean-up sites.

EYE PROTECTION: Chemical goggles or faceshield recommended to minimize eye contact.

PROTECTIVE CLOTHING: Impervious (nitrile) gloves recommended when handling material to minimize exposure. Long sleeve shirts, chemically protective aprons and chemically protective boots are recommended for contact exposure or spill clean-up. Do not wear watches, rings or similar apparel that could entrap the material next to the skin.

OTHER (SAFETY SHOWERS, EYE WASH STATIONS, ETC.): Water should be available for flushing and washing when exposure exists. Launder soiled clothes. Discard shoes or other leather articles saturated with the material.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Amber liquid

ODOR: Mild odor

BOILING POINT: N/D

SPECIFIC GRAVITY (water=1): 0.8400 - 0.8800

VAPOR PRESSURE: <1 mm Hg 68° F

VAPOR DENSITY (air=1): N/D

SOLUBLE IN WATER: Insoluble

EVAPORATION RATE (ether=1): <1

Section 10 - STABILITY AND REACTIVITY

pH: N/D

STABILITY:

STABLE X (At room temperature and pressure. See handling and storage section)

UNSTABLE

INCOMPATIBILITY -

CONDITIONS TO AVOID: See handling and storage section.

MATERIALS TO AVOID: Acids, oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Smoke, carbon monoxide, aldehydes, hydrogen sulfide and alkyl mercaptans may be released. Under combustion conditions, oxides of the following elements will be formed: Magnesium, calcium, nitrogen, sulfur, carbon.

HAZARDOUS POLYMERIZATION: Will not occur.

Section 11 - TOXICOLOGY INFORMATION

Please refer to Section 3 for available information on potential health effects.

Note: CHS Inc. has not performed specific toxicity tests on this product.

Section 12 - ECOLOGICAL INFORMATION

No specific ecological data are available for this product. Please refer to Section 6 for information regarding accidental releases and Section 15 for regulatory reporting information.

Note: CHS Inc. has not performed specific ecological tests on this product.

Section 13 - DISPOSAL CONSIDERATION

WASTE DISPOSAL PROCEDURES: Place contaminated materials in a disposable container and dispose of in accordance with Local, State and Federal environmental regulations. Refer to Sections 5, 6, and 15 for additional information.

Section 14 - TRANSPORTATION

DOT PROPER SHIPPING NAME: N/A

DOT HAZARD CLASS: N/A

DOT IDENTIFICATION NUMBER: N/A

DOT EMER. RESPONSE GUIDE NO.: N/A

This product is not DOT regulated.

Section 15 - REGULATORY INFORMATION

This product **does** contain toxic chemicals subject to the reporting requirements of SARA Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

CAS Number

N982

Chemical Name

Zinc compounds

Percent by Weight

0.45% (0.03% as Zn)

Below *de minimus* level

SARA SECTION 311-312 HAZARD CATEGORIES (40 CFR 370.2):

FIRE: No

SUDDEN RELEASE OF PRESSURE: No

REACTIVE: No

ACUTE: No **CHRONIC:** No

Section 16 - OTHER INFORMATION

Prepared By: Norman Rath

DATE: March 25, 2005

Approved by: Hue Lam

Supersedes: 4/6/99

Title: EHS Compliance Specialist

Reason for Issue: Technical review: S3, 11-16

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